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# A REVIEW PAPER ON USING NSAID (NON-STEROIDAL ANTI- INFLAMMATORY DRUG) FOR OSTEOARTHRITIS

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## **Abstract**

*Osteoarthritis (OA) is a type of joint disorder that results from breakdown of joint cartilage and underlying bone. The most usual symptoms are joint pain and stiffness. Usually the symptoms increases slowly over years. Initially they may feel only after exercise but can become permanent over time. Other symptoms may involve joint swelling, reduced range of motion, and, when the back is hurt, weakness or numbness of the arms and legs. The most usually involved joints that are very close to the ends of the fingers and the joint at the lower end of the thumbs; the knee and hip joints; and the junction of the neck and lower back. Joints on one side of the body are usually more affected than those on the other. The symptoms can hamper work and normal daily activities.*

**Keywords:** *Osteoarthritis, Arthritis, Joint Pain, NSAID.*

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## **I. INTRODUCTION**

Osteoarthritis is the most usual form of arthritis, affecting millions of population worldwide. It happens when the protective cartilage that provides support to the ends of your bones wears down over time. Although osteoarthritis can hamper any joint, the disorder most usually affects joints in your hands, knees, hips and spine. Osteoarthritis symptoms can generally be managed, although the damage to joints can't be altered. Staying active, maintaining an ideal weight and some treatments might reduce progression of the disease and support improve pain and joint function (Figure 1). [1]–[3]

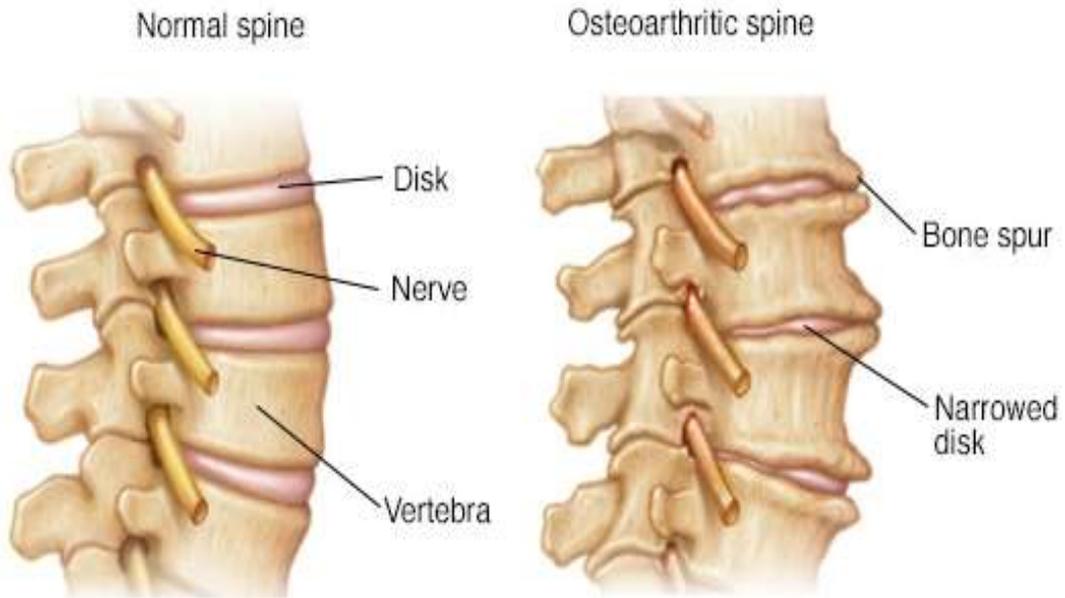


Fig. 1 Difference between Normal Spine and Osteoarthritic Spine.

## II. DISCUSSION

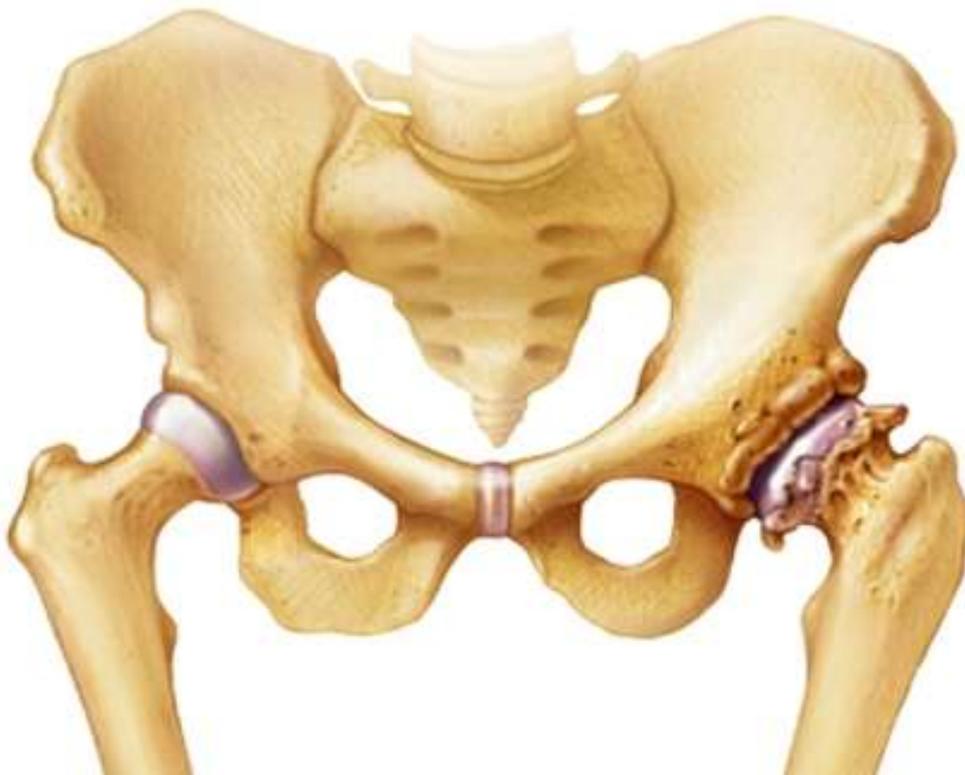


Fig. 2 Osteoarthritis of the hip Open pop-up dialog box

Osteoarthritis symptoms usually develop slowly and aggravate over time. Signs and symptoms of osteoarthritis include:

1. Pain: Affected joints might damage during or after movement.
2. Stiffness: Joint stiffness might be most prominent upon awakening or after being inactive.
3. Tenderness: Your joint might sense tender when you put light pressure to or near it.
4. Loss of flexibility: You might not be able to rotate your joint through its highest range of motion.
5. Grating sensation: You might sense a grating sensation when you utilise the joint, and you might feel popping or crackling.
6. Bone spurs: These extra bits of bone, which appears like hard lumps, can form near the affected joint, swelling: This might be happened by soft tissue inflammation near the joint. When to see a doctor: If you have joint pain or stiffness that doesn't reduce, make an appointment with your doctor.

Causes: Osteoarthritis happens when the cartilage that supports the ends of bones in your joints slowly deteriorates. Cartilage is a hard, slippery tissue that allows nearly frictionless joint motion. Eventually, if the cartilage wears down totally, bone will give friction on bone. Osteoarthritis has usually been referred to as a "wear and tear" disease. But other than the breakdown of cartilage, osteoarthritis hurts the entire joint. It causes variation in the bone and degradation of the connective tissues that grips the joint together and links muscle to bone. It also results in inflammation of the joint lining.

Risk factors that can raise your risk of osteoarthritis include: Older age: The risk of osteoarthritis raises with age. Sex: Women are more prone to develop osteoarthritis, though it isn't known why. Obesity: Carrying extra body weight leads to osteoarthritis in many ways, and the higher you weigh, the more is your risk. Increased weight adds tension to weight-bearing joints, like your hips and knees. Also, fat tissue generates proteins that can lead to harmful inflammation in and around your joints.

Joint injuries. Injuries, such as those that happen when playing sports or from an accident, can raise the risk of osteoarthritis. Even injuries that happened many years ago and apparently healed can raise your risk of osteoarthritis. Repeated tension on the joint. If your occupation or a sport you play gives repetitive stress on a joint, that joint might ultimately develop osteoarthritis. Genetics. Some people have a tendency to develop osteoarthritis. Bone deformities.

Some people are born with deformed joints or defective cartilage. Certain metabolic ailments. These involve diabetes and a state in which your body has excess of iron (hemochromatosis). Complications: Osteoarthritis is a degenerative disease that worsens over time, often causing chronic pain. Joint pain and stiffness can be severe enough to make daily work difficult. Depression and sleep disturbances can lead to the pain and disability of osteoarthritis. [4]–[10]

### III. CONCLUSION

Aspirin is an OTC NSAID that cures pain and inflammation. It can support in treating your OA symptoms to increase your quality of life. Ibuprofen (Advil, Motrin, IBU-Tab) Ibuprofen (Advil, Motrin, IBU-Tab) is an NSAID available in both OTC and prescription strengths. Taking ibuprofen for long isn't suggested because of the danger of stomach bleeding and heart attack. Naproxen (Naprosyn) and naproxen sodium (Aleve): Naproxen (Naprosyn) and naproxen sodium (Aleve) are utilised to cure OA pain and swelling. Naproxen is only bought by prescription. Naproxen sodium in higher doses are also bought in prescription forms. Some side effects of naproxen and naproxen sodium involve: heartburn, stomach pain, nausea, diarrhoea, headaches, dizziness, drowsiness. Diclofenac (Zipsor, Voltaren) and diclofenac-misoprostol (Arthrotec): Diclofenac (Zipsor, Voltaren) is an NSAID that is manufactured in both oral and topical forms. The oral drug Zipsor is available by prescription, while the topical drug Voltaren is bought without prescription. The oral drug diclofenac-misoprostol (Arthrotec) combines diclofenac with a drug that protects against stomach ulcers.

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